



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,668	12/16/2003	Dov Moran	246/234	2836

7590 06/27/2006

DR. MARK FRIEDMAN LTD.

C/o Bill Polkinghorn

Discovery Dispatch

9003 Florin Way

Upper Marlboro, MD 20772

EXAMINER

NORRIS, JEREMY C

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/735,668

Applicant(s)

MORAN, DOV

Examiner

Jeremy C. Norris

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8 May 2006 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-13, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,020,629 (Farnworth).

Farnworth discloses, referring primarily to figures 2C & D, an electronic module, comprising; electronic circuitry (20); first connection mechanism (40), operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board by a first method; and a second connection mechanism (42), operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board by a second method different from said first method, wherein mounting using only one of said connection mechanisms is needed to render the electronic

Art Unit: 2841

module fully operational [**claim 1**], wherein said first method is robotic mounting and said second method is manual mounting [**claim 2**], wherein said first connection mechanism is directly operationally connected to said electronic circuitry [**claim 3**], wherein said second connection is operationally connected to said electronic circuitry via said first mechanism connection mechanism [**claim 5**].

Alternately, Farnworth discloses, referring primarily to figure 10, an electronic module, comprising; electronic circuitry (20); first connection mechanism (42), operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board by a first method; and a second connection mechanism (40), operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board by a second method different from said first method wherein mounting using only one of said connection mechanisms is needed to render the electronic module fully operational [**claim 1**], wherein said second connection mechanism is directly operationally connected to said electronic circuitry [**claim 6**], wherein said second connection is operationally connected to said electronic circuitry via said first mechanism connection mechanism [**claim 7**], wherein first connection mechanism includes at least one substantially hemispherical solder ball (col. 5, lines 15-20) [**claim 8**], wherein said second connection mechanism includes at least one electrically conducting pad (col. 5, lines 15-20) [**claim 9**], wherein said at least one solder ball and said at least one pad are like in number [**claim 10**], further comprising: for each said solder ball, and for a respective said pad, a respective wire (44) operationally connecting said each solder ball to said respective pad [**claim 11**],

Art Unit: 2841

wherein said second connection mechanism includes at least one electrically conducting pad (col. 5, lines 15-20) [**claim 12**], further comprising an electrically insulating body (12) whereon said electronic circuitry, said first connection mechanism and said second connection mechanism are mounted [**claim 13**].

Additionally, Farnworth discloses, an electronic module, comprising; electronic circuitry (20); a first connection mechanism (40), operationally connected to said electronic circuitry (figure 2), for mounting of the electronic module by a first method; and a second connection mechanism (42), operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board by a second method different from said first method, and an electrically insulating body (12) whereon said electronic circuitry, said first connection mechanism and said second connection mechanism are mounted wherein mounting using only one of said connection mechanisms is needed to render the electronic module fully operational [**claim 16**].

Claims 1-4, 6, 13, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,081,430 (La Rue).

La Rue discloses, referring primarily to figure 7, an electronic module (40), comprising; electronic circuitry (7); first connection mechanism (44), operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board (1) by a first method; and a second connection mechanism (37), operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board (6) by a second method different from said first

Art Unit: 2841

method, wherein mounting using only one of said connection mechanisms is needed to render the electronic module fully operational **[claim 1]**, wherein said first method is robotic mounting and said second method is manual mounting **[claim 2]**, wherein said first connection mechanism is directly operationally connected to said electronic circuitry **[claim 3]**, wherein said second connection is directly operationally connected to said electronic circuitry **[claim 4]**, wherein said second connection mechanism is directly operationally connected to said electronic circuitry **[claim 6]**, further comprising an electrically insulating body (12) whereon said electronic circuitry, said first connection mechanism and said second connection mechanism are mounted **[claim 13]**.

Similarly, La Rue discloses, an electronic module (40), comprising; electronic circuitry (7); a first connection mechanism (44), directly operationally connected to said electronic circuitry, for mounting of the electronic module by a first method; and a second connection mechanism (37), directly operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board by a second method different from said first method wherein mounting using only one of said connection mechanisms is needed to render the electronic module fully operational **[claim 15]**.

Additionally, La Rue discloses, an electronic module, comprising; electronic circuitry (7); a first connection mechanism (44), operationally connected to said electronic circuitry, for mounting of the electronic module by a first method; and a second connection mechanism (37), operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board by a second method

Art Unit: 2841

different from said first method, and an electrically insulating body (40) whereon said electronic circuitry, said first connection mechanism and said second connection mechanism are mounted wherein mounting using only one of said connection mechanisms is needed to render the electronic module fully operational [**claim 16**].

Claims 1, 13, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by US 7,010,629 B1 (Frame).

Frame discloses, referring primarily to figure 2, an electronic module (20), comprising; electronic circuitry (21); first connection mechanism (56), operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board (25) by a first method (vertical mounting); and a second connection mechanism (57), operationally connected to said electronic circuitry, for mounting of the electronic module on a printed circuit board (25) by a second method (angular mounting, col. 3, lines 40-60) different from said first method, wherein mounting using only one of said connection mechanisms is needed to render the electronic module fully operational [**claim 1**], further comprising an electrically insulating body whereon said electronic circuitry, said first connection mechanism and said second connection mechanism are mounted [**claim 13**], wherein both said first connection mechanism and said second connection mechanism are mounted on a common side of said body [**claim 14**].

### ***Response to Arguments***

Applicant's arguments filed 8 May 2006 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims 4 and 14-16 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 1-3 and 5-13, Applicant argues that Farnworth only discloses one connection method (contact 42) for mounting on a printed circuit board. However, in doing so, Applicant ignores that the ordinarily skilled artisan would recognize that each module 12 disclosed by Farnworth is indeed a "printed circuit board" in its own right. Thus, Farnworth does indeed disclose a first connection method (e.g. pads 40) for mounting to a printed circuit board (another module 12) and a second connection method (e.g. contacts 42) for mounting to a printed circuit board (an external board, col. 9, lines 1-10). Hence, the invention of Farnworth is indeed germane to the instantly claimed invention and Applicant's traversal of the rejection on this ground is deemed unsuccessful.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy C. Norris whose telephone number is 571-272-1932. The examiner can normally be reached on Monday - Friday, 9:30 am - 5:30 pm.

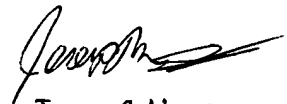


Art Unit: 2841

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCSN

  
Jeremy C. Norris  
Patent Examiner  
Technology Center 2800